

Bovine Spongiform Encephalopathy in North America

October 2007



Current theory proposes that Bovine Spongiform Encephalopathy (BSE) entered North America through cattle imported from the United Kingdom (UK) during the 1980's; 182 UK cattle were imported directly into Canada and 300 into the U.S. from 1982 to 1990. Native cattle were most likely exposed to BSE by eating a ration containing meat and bone meal contaminated with infectious material.

Animal Feed Controls

In 1997, both the U.S. and Canada introduced measures to safeguard cattle feed by prohibiting the use of protein derived from mammalian tissues in ruminant feed (excluding blood, milk, and products consisting of porcine or equine protein, gelatin, and certain products that are heat processed for feed). In October 2005, the Food and Drug Administration proposed strengthening U.S. animal feed controls. The proposal **bans the use of cattle parts most likely to spread BSE in all animal feed**, including:

- brain and spinal cord from cattle 30 months of age and older
- entire carcass of cattle not passed for human consumption if the brain and spinal cord have not been removed
- tallow from prohibited materials that contains more than 0.15 percent insoluble impurities, and
- mechanically separated beef.

In July 2007, Canada banned specified risk materials from all animal feeds, pet foods and fertilizers.

What Should Producers Do?

- Comply with feed bans - **do not feed products containing prohibited materials.**
- Keep copies of feed records, such as invoices and labels.
- Establish an individual animal identification plan. Keep records of animals entering and leaving your herd.
- **Report cattle with neurological signs to your veterinarian.**
- Dispose of carcasses appropriately, such as with a licensed renderer.
- Help to ensure that unsafe meat does not enter the human food chain.

Fourteen Cases Diagnosed in North America

Case 1: In 1993, BSE was confirmed in a beef cow from **Alberta, imported from the UK**. The carcass was diverted from human food and animal feed. Canada depopulated all of their remaining UK cattle.

Case 2: On May 20, 2003, BSE was confirmed in a six-year-old Angus cow born in **Saskatchewan**. The cow did not enter human food; the remains entered the feed system through a rendering facility in Alberta. The herd of origin and other animals of interest were slaughtered; more than 2,700 cattle were culled.

Case 3: On December 25, 2003, BSE was confirmed in a six-year-old Holstein cow in **Washington State**. The cow was born in Alberta and entered the U.S. in 2001 as part of a shipment of 81 animals. Over 255 cattle were depopulated from 10 premises.

Case 4: On January 2, 2005, BSE was confirmed in an eight-year-old Holstein cow born in **Alberta**. No part of the cow entered the human or animal food chain. Over 130 animals were traced; those located were culled.

Case 5: On January 11, 2005, BSE was confirmed in a six-year-old Charolais cow born in **Alberta**. No part of the animal entered the human or animal food chain. Over 350 animals were investigated, and 41 were culled.

Case 6: On June 24, 2005, BSE was confirmed in a 12-year-old Brahma-cross cow born in **Texas**. No part of this animal entered the human or animal food chain. Over 200 cattle were investigated.

Case 7: On January 23, 2006, BSE was confirmed in a six-year-old Holstein-Hereford cross cow in **Alberta**. No part of the animal entered the human or animal food chain. A total of 156 cattle were investigated.

Case 8: On March 13, 2006, BSE was confirmed in a ten-year-old crossbred beef cow in **Alabama, U.S.** The investigation was unable to find any related animals except for the two most recent calves.

Case 9: On April 16, 2006, BSE was confirmed in a six-year-old Holstein cow from **British Columbia**.

Case 10: On July 4, 2006, BSE was confirmed in a 15-year-old crossbred beef cow from **Manitoba**.

Case 11: On July 13, 2006, BSE was confirmed in a 50-month-old dairy cow from **Alberta**.

Case 12: On August 23, 2006, BSE was confirmed in an eight to ten-year-old beef cow from **Alberta**.

Case 13: On February 7, 2007, BSE was confirmed in a six and a half year old mature bull from **Alberta**.

Case 14: On May 2, 2007, Canada confirmed BSE in a five and a half year old dairy cow from **British Columbia**.

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